

Figure 1

```
//
Submission no      :      1
exon 1             :      <..672
start codon        :      381..383
intron 1           :      673.
Remarks           :      no consensus splice site intron 1
```

```

tttttttacg ttctcttttt tttcgagtgg tgactggatg ctgattcttc      50
ctcgtatttt tgctgcttct ctctccctcc cctccttccc gggccccggg      100
ccgccccgca cctccttccc gccctcctt ctccggggtc agccaggaag      150
atgtcccgag ctgctatccc cggctcggcc cgggcagccg ccttctgagc      200
ccccgaccgg agcgccgagc cgccgcgcga tgggctgggc cgtggagcgt      250
ctccgcagtc gtagctccag ccgcgcgct cccagccccg gcagcctcag      300
catcagcggc ggcggcggcg gcggcggcgt cttccgcctc gttcgccgca      350
gcgtaaccgg agccctttgc tctttgcaga ATGGCCCGCT TCGGAGACGA      400
GATGCCGGCC CGCTACGGGG GAGGAGGCTC CGGGGCAGCC GCCGGGGTGG      450
TCGTGGGCAG CGGAGGCGGG CGAGGAGCCG GGGGCAGCCG GCAGGGCGGG      500
CAGCCCGGGG CGCAAAGGAT GTACAAGCAG TCAATGGCGC AGAGAGCGCG      550
GACCATGGCA CTCTACAACC CCATCCCCGT CCGACAGAAC TGCCTCACGG      600
TTAACC GGTC TCTCTTCCTC TTCAGCGAAG ACAACGTGGT GAGAAAATAC      650
GCCAAAAGAT CACCGAATGG CCatatacctt ttgcccgaac cccagcagca      700
gctgcgcctc cccctcctcc ctccgcctcc cetcttccag gctgggagag      750
agaccggggg gttgatggga ggtggggagg aggggggtct tccaggggct      800
gggagagggg gcaccgggag gagtgtgaaa gaatctctcc accccgagct      850
gggttgagct accctggagg cttgggaatg ggtttttcgg gggctggggg      900
ccggccagcc ggagagtgga tccttcccaa ggaccgactc tagaatgaga      950
tct                                                                953
```

//

Submission no : 2
 Intron 1 : <..88
 Exon 2 : 89..194
 Intron 2 : 195..>
 Remarks : No consensus splice site intron 1

gatcttthycc	actgggggtca	gtgggggtgg	gtgcacctcc	aacacccttc	50
ttttctttga	acaagatttt	tccttaattc	cccaatactc	CCTTTGAATA	100
TATGATTTTA	GCCACCATCA	TAGCGAATTG	CATCGTCCTC	GCACTGGAGC	150
AGCATCTGCC	TGATGATGAC	AAGACCCCGA	TGTCTGAACG	GCTGgtgagt	200
gatgtctttt	ctcaggggtc	tctccttggc	tttagcagga	cattaatttt	250
tgggggagtg	gagcagggca	cagaggaggc	tctcagtcct	ggagcccaga	300
gccagatcat	gggaagccta	aatttccttt	tcattttttc	ttgaaccaga	350
gtctcgctct	gtcaccaggg	ctggagtgca	gtggttcagt	catagctcac	400
tgcagcctcc	acctcctggg	ctcaagccat	cctcccactg	cagcctcctg	450
agtagcaggg	actaacaggt	gccaccatgc	ccagtttaatt	ttcttatttt	500
tatctttttt	tgtaagaaga	tggggat			527

//

Submission no : 3
 Intron 2 : <..57
 Exon 3 : 58..197
 Intron 3 : 198..>

gatcttgtca	acatctgccc	agcccaagac	gctgaccttg	ccttctctcc	50
cttccagGAT	GACACAGAAC	CATACTTCAT	TGGAATTTTT	TGTTTCGAGG	100
CTGGAATTAA	AATCATTGCC	CTTGGGTTTG	CCTTCCACAA	AGGCTCCTAC	150
TTGAGGAATG	GCTGGAATGT	CATGGACTTT	GTGGTGGTGC	TAACGGGgta	200
agtggcgcg	gctatacgct	ttggatttaa	ctagctgaag	gattacgagg	250
cttttggttg	gtgtggtccg	ggccaggctc	aggaaggctg	agcccttgtg	300
ttctccctcc	ccttgttatg	cgcctgcctc	ctttctgcca	acaccccacc	350
tccatgtctc	agctgtatat	tacagcagat	gctttctgtt	acaattaaaa	400
taatagctca	ttattgttgg	ctgcttccag	agtgccttat	g	441

//

Submission no : 4
Intron 3 : <..142
Exon 4 : 143..234
Intron 5 : 235..>

aaaactgagg	ccagtgggtgt	cgagtcacct	gcctgtgggc	acccaaccaa	50
tacaggacag	cttggaatcc	caagcacccc	cgccctgctg	tctgaccccc	100
aaaacccacc	ctctgttctc	cattctggct	tctttctttc	agCATCTTGG	150
CGACAGTTGG	GACGGAGTTT	GACCTACGGA	CGCTGAGGGC	AGTTCGAGTG	200
CTGCGGCCGC	TCAAGCTGGT	GTCTGGAATC	CCAgtgcgt	gagtttccga	250
ccctgacaa					259

11

```
Submission no      :      5
Intron 4           :      <..118
Exon 5             :      119..271
Intron 5           :      272..>
```

cttaatat	cctcaggaac	acacctgctt	tgtctgggag	agacctgggc	50
gtctctgg	cggggttttg	ggggtacttg	ctcatgggct	tatggggcct	100
ctctctgtgt	ccccccagGT	TTACAAGTCG	TCCTGAAGTC	GATCATGAAG	150
GCGATGATCC	CTTTGCTGCA	GATCGGCCTC	CTCCTATTTT	TTGCAATCCT	200
TATTTTTTGCA	ATCATAGGGT	TAGAATTTTA	TATGGGAAAA	TTTCATACCA	250
CCTGCTTTGA	AGAGGGGACA	Ggtaggtcca	cggagcatga	tgcattcttc	300
cagttttctc	cttcagggac	aagctcttgg	gaggattagg	caggggtgtg	350
cttctttctc	ctggcagctg	ggaggaccgt	ctccttcaga	gagcactac	399

//

Submission no : 6
Intron 5 : <..22
Exon 6 : 23..216
Intron 6 : 217..>

ttttttccct	tcccttttgt	agATGACATT	CAGGGTGAGT	CTCCGGCTCC	50
ATGTGGGACA	GAAGAGCCCG	CCCGCACCTG	CCCCAATGGG	ACCAAATGTC	100
AGCCCTACTG	GGAAGGGCCC	AACAACGGGA	TCACTCAGTT	CGACAACATC	150
CTGTTTGCAG	TGCTGACTGT	TTTCCAGTGC	ATAACCATGG	AAGGGTGGAC	200
TGATCTCCTC	TACAAAtgtaa	gtgatgctgg	gacagtgtgt	gtggacaatc	250
agagtctcag	ggaggtggcc	tcctgggacc	agtgagactc	caaggctgca	300
atggagggac	cctgagctgg	gaaaggcagc	ccaaggacaa	cacagcccca	350
ctgaagctgg	cctgaggctc	aggcttttga	agattacagg	ggctcatgag	400
cagaactcta	actatagggc	atagaagtct	ggagggcccc	cagatgcaac	450
atcatttttc	attgtgcaag	tgtttagata	taattttaga	tttttgaata	500
cggaaggtt	atgtgatcca	aaatccaaca	cagataaaaag	atagagtaat	550
atcttttgac	gtaggcgagg	ggccctgcc	ctgagg		586

//

Submission no : 7
Intron 6 : <..183
Exon 7 : 184..287
Intron 7 : 288..>

tttcttcaga	aaacgggtcc	ttcctccatt	tccccctctg	ggatgccaga	50
gccccagAAC	tccacaagcc	agaacattt	aagacagagc	cacaagagaa	100
ccgagcttcc	ccttccctca	cctgtcaggt	tctatctgag	tcccagtcaa	150
ctctcacctg	ctttccctcc	tcacacccta	cagAGCAACG	ATGCCTCAGG	200
GAACACTTGG	AACTGGTTGT	ACTTCATCCC	CCTCATCATC	ATCGGCTCCT	250
TTTTTATGCT	GAACCTTGTG	CTGGGTGTGC	TGTCAGGgta	agtttctgct	300
actccccacc	ccatcccact	cactcctctt	tgctaacttc	tttccaagta	350
gaggccattg	aagctttgtt	ttcattcact	agacaga		387

//

Submission no : 8
Intron 7 : <...190
Exon 8 : 191..306
Intron 8 : 307..>
Sequence : 412
Remark : intron 7 contains CA-repeat (D19S1150)

cccagtccttt	tcccagaagt	cctgactcct	cctggtgaaa	actcctgacc	50
tccagggact	tctgaatccc	caaacacaca	cacacacaaa	cacacacaca	100
cacacacaca	cacacacaca	caaacacaca	cacaaacgtt	tcctaacatt	150
tt.aaaacag	ccatactctg	gcttttctat	gcttctccag	GGAGTTTGCC	200
AAAGAAAGGG	AACGGGTGGA	GAACCGGCGG	GCTTTTCTGA	AGCTGAGGCG	250
GCAACAACAG	ATTGAACGTG	AGCTCAATGG	GTACATGGAA	TGGATCTCAA	300
AAGCAGgtga	ggccctttca	tcctggggcc	cagggatgga	gatcccaggc	350
cacagagtac	aaagagagtc	atgcagtttg	gagaaggcta	agctgggagg	400
gttatgatgg	ga				412

//

Submission no : 9
 Intron 8 : <..513
 Exon 9 : 514..570
 Intron 9 : 571..>

gagtaggaag	ttagagggcag	ggtgggtcagg	gaaggcttct	ctaaggaagt	50
accctctgag	cagagagacc	tgaaggacgt	gaagaaggaa	gctgtgggga	100
tgtcaagga	aggggcattc	caggcagaga	cagcaagtgc	aaaggccctg	150
agctaggaac	gtatttgaga	cacagcaagg	aagccagtgc	agctgaaaca	200
gagtgaagagg	tggggacagc	tggaggagag	gaagacagga	aggtgatgga	250
gatcagatca	agcaggggct	tataggctgt	ggtgtggaca	ttggttttta	300
ttttgcgcga	ggtggggaga	atgttggcta	ttgctactgt	tcgaggaggtg	350
gggcttgaag	tcacaaacca	cccagcagca	tggttttttg	tcggttgagc	400
tgtcaccatc	agtcagcaga	gaatgggggt	ggccgggcag	acccttcttc	450
ctggtccaag	ggagaactca	tcctccaaat	gcaggagctt	aactctgtgc	500
tccttcctct	cagAAGAGGT	GATCCTCGCC	GAGGATGAAA	CTGACGGGGA	550
GCAGAGGCAT	CCCTTTGATG	gtaactgctc	taaaccacc	tcaggggtgg	600
gtcccagggg	a				611

//

Submission no : 10
Intron 9 : <..86
Exon 10 : 87..179
Intron 10 : 179..>

ttaatccaag	acacactgtg	tgtcctatat	ggctctgtgtt	cgaaaaaggg	50
taacgtcttt	ttctcttgcc	atgtttccat	tgtagGAGC	TCTGCGGAGA	100
ACCACCATAA	AGAAAAGCAA	GACAGATTTG	CTCAACCCCG	AAAGAGGCTGA	150
GGATCAGCTG	GCTGATATAG	CCTCTGTGGg	tgagtcctt	cctctgccac	200
ctatcagttg	ttcatcacct	atcgcccaag	agacatggtg	gggtgggggc	250
agagggcttg	caaaccgtgc	tgcttggtt	tggtctcag	ctccaccctt	300
tcccacctgt	gcgtgtgtcc	tgggcagatt	acatcattat	gggaataaca	350
tccgtgccta	gcttctcatt	atgttggtgg	aattcaacta	aatgatcccc	400
atgaagcatg	gcaaaccagc	acctggcagg	gacgaagctc	ccagtcaagt	450
tggtgaatgt	ttgtgactca	ttcgggaagt	atcatggggg	acctgcttat	500
attaggtgct	tggttgcaaa	caaacaaggc	agtcacgagg	ctgagctggg	550
aggatcactt	gagcctggga	agtggaggct	gcaataagcc	attattgtgt	600
tactgcactc	cagcctggca	cagaaaaaaaa	aaaaaaaaanac	aaactgagcc	650
agcaca					656

//

Submission no : 11
 Intron 10 : <..450
 Exon 11 : 451..660
 Intron 11 : 661..>

gatcacttct	aaagttaaat	gtccatggga	aaacagtctc	atccacatct	50
ctttctggag	gccttccaag	cgtgctccat	gcagctctgt	tgcctgcccc	100
tgcatacagg	aatggaggct	ctgctttatc	ctgccctgtg	gtgtgactcc	150
cagaggcatc	agatgtggct	gggagtggga	gacatggaaa	attggctcct	200
gcaacagaga	actatcagcc	ttcccatcaa	ttggttactt	ctaattctgt	250
tatttttcag	gggcactgtc	ttctcataag	ctccatctat	gcaaaaactaa	300
gccccatgggt	catgatgggt	ccctcaggcc	agaggcttgc	tggagagact	350
aatggatccc	ctggctaaaa	tctgtgcttg	ggctgcacat	tggttaattt	400
cttctgaagg	aacagcctga	gcctgacatt	ctccatcttt	tccctggcag	450
GTTCTCCCTT	CGCCCGAGCC	AGCATTAAAA	GTGCCAAGCT	GGAGAACTCG	500
ACCTTTTTTC	ACAAAAAGGA	GAGGAGGATG	CGTTTCTACA	TCCGCCGCAT	550
GGTCAAAACT	CAGGCCTTCT	ACTGGACTGT	ACTCAGTTTG	GTAGCTCTCA	600
ACACGCTGTG	TGTTGCTATT	GTTCACTACA	ACCAGCCCGA	GTGGCTCTCC	650
GACTTCCTTT	gtgagtatca	cccagcccca	cccctgccaa	ctccctgate	700
cctccctcac	accctttttc	cacttctctt	tctctggtag	tatgtgtatc	750
ttcttttggtc	ctcattgaat	ctgccctt			778

```
//
Submission no : 12
Intron 11 : <..323
Exon 12 : 324..436
Intron 12 : 437..>
```

gatcacttgt	ggccaggagt	tcaagancag	ccagggcaac	atagtgagga	50
cccccatctc	cacattaaaa	attttaaaaa	gaaaaaagat	aagtcagaag	100
ttgggtgtgg	tgacacatgc	ctgtagtctc	agcatgttgg	aggccaaatc	150
agggaaactg	tttgaggcca	ggagtttgaa	accagcctaa	cagcatagca	200
agacctcatc	tctacaaaaa	ataaaaagtt	taaaaatgat	aataaaaagga	250
aagtcagagc	cacctggaac	ccctaccctc	agcaagccta	acctcctctc	300
tgtttcctcc	ttctcccttc	tagACTATGC	AGAATTCATT	TTCTTAGGAC	350
TCTTTATGTC	CGAAATGTTT	ATAAAAATGT	ACGGGCTTGG	GACGCGGCCT	400
TACTTCCACT	CTTCCTTCAA	CTGCTTTGAC	TGTGGGgtaa	gtgctcttgt	450
ttctaagagt	tcatttctcc	agctcttgcc	tggaatgaca	gataacctgga	500
cacattaaag	ggagaaaagg	aaagtcaccc	ctgaatatga	gagactcaga	550
tggatgcaga	aggaatgaga	aaacaatcca	aacactggca	aggatacagt	600
gtaccacaga	ccctcaacca	ccgcca			626

//

Submission no : 13
 Intron 12 : <..545
 Exon 13 : 546..658
 Intron 13 : 659..821
 Exon 14 : 822..953
 Intron 14 : 954..>

gacnngncat	gcacaccagc	ctgggtgata	agagcaagac	tcctctcaaa	50
ataaatgaat	aaataaaaaat	aaataaataa	ataagaggcc	gggtgcagt	100
gctcaatgct	ttggaaagt	gaggccaaca	gttgagaga	ccaaagcagg	150
aggatggctt	cagcccagaa	gtttgaggcc	mgcctgggca	atactagcga	200
gacactatct	ctataaaaaat	gttttaaaat	tagccagatg	tgggtggggca	250
cacctgtaat	cccagctact	caagaggctg	agggtgggagg	atcacttaag	300
cccaggagga	cagtgcctgca	gtgagctatg	attgcgcccc	ctgcactcca	350
gcctgggtga	cacagtgaga	cccggctctt	atagataaat	gaatggatga	400
atgagggggg	caaggatcct	caccgggctt	ccatttgagg	ggaggagttt	450
ggttgagttc	ttgcaagggt	ggtacctagg	aaatgcttgc	cagttctgga	500
gcccagacac	tgtccctgga	catgagacca	ggttctctgc	cctagGTTAT	550
CATTGGGAGC	ATCTTCGAGG	TCATCTGGGC	TGTCATAAAA	CCTGGCACAT	600
CCTTTGGAAT	CAGCGTGTTA	CGAGCCCTCA	GGTTATTGCG	TATTTTCAAA	650
GTCACAAAgt	aagtcttttg	ggttcctgga	catttgtaga	gggggtgggg	700
atgggggaca	tgggtggggc	gcctccagaa	agttgggaaa	gtgagcctcg	750
tgtttcgagg	gctgactccg	gggcctgcct	wccccgcctg	gcctgagtc	800
tcgcctggsc	tctgtcggca	gGTACTGGGC	ATCTCTCAGA	AACCTGGTCG	850
TCTCTCTCCT	CAACTCCATG	AAGTCCATCA	TCAGCCTGTT	GTTTCTCCTT	900
TTCTGTTC	TTGTCTGCTT	CGCCCTTTTG	GGAATGCAAC	TCTTCGGCGG	950
CCAgtaaagtc	cttcacagga	attcaa			976

//

Submission no : 14
 Intron 14 : <..201
 Exon 15 : 202..274
 Intron 15 : 274..>

ccctccacgt	gcaggetgcc	ttccctcgtag	cccagacacc	catttgcggt	50
cacccaaatg	ggcagggccc	tgggtaccac	tcaggggttc	ctggggacag	100
agatgatgga	aacgttcgtt	tccttggaga	tgagatactg	agccacaccc	150
tcagagcacc	ccgggtgggg	ccaacgtgaa	atgtctgtgt	cctccctgca	200
gGTTTAATTT	CGATGAAGGG	ACTCCTCCCA	CCAAC TTCGA	TACTTTTCCA	250
GCAGCAATAA	TGACGGTGTT	TCAGgtacag	cctccacctg	gccccacggg	300
ccaacacctc	tcagtgtcac	agatgaaagt	gcctgctcca	catccaaggg	350
gcttccctga	actcctcctt	ctctacctgg	ccttttcaca	ccactttgaa	400
acacagatgt	tatggttatc	attattcaat	tatggtgagg	ccaacagatc	450
aggagatgaa	tgtcattgga	aagatagttt	gtggctgggc	acggtggctc	500
acacccataa	tcccagcact	ttggccaggt	acggtggctc	acacctgtaa	550
tcccaacgct	ttgggaagcc	caggtgggagg	atcacttga	gatcaggaat	600
tcgagaccag	cctggccaan	atgggtgaaac	cccattctcta	ctaaaaatac	650
aaaaattagc	cgggcgtggt	agcacatgcc	tgtaatccca	gctactcggg	700
agatgaggca	caagaattgc	ttgaacctgg	gaggcagagg	ttgcagtgag	750
ccaagatcgc	gccactgcac	tcmagcctgg	gcaacagagt	gagactccat	800
ctcaaaaaag	caaaaagaaaa	aaaaaaaccac	tttgggaggt	caagatggga	850
ggactacttg	aggccaggag	tttgagacaa	gtctgggcaa	catagtgaga	900
ctccgtctct	gcaaaaaaat	wataataata	attagctggg	catggtgata	950
catacctcct	agctactagg	gcagctgaag	tggaaggatt	gcttaagccc	1000
aggaggttga	ggctgcagta	agctacaatc	acaccactat	actccagcct	1050
gggcgagaga	gcaaaagccct	gtctcaaaaa	cgaaaagaaa	gtttgttata	1100
ctcacagatc					1110

//

Submission no : 15
 Intron 15 : <..524
 Exon 16 : 525..642
 Intron 16 : 643..795
 Exon 17 : 796..863
 Intron 17 : 864.>

gatacctccca	ccttggcctc	ccaaagtgct	gggattacag	gcatgagcca	50
tggcatgcg	tctcttcctg	ttcttataag	ggcactaata	ccatcatgaa	100
gtcccccatg	acctcatcta	accctagtta	cctcttaaa	gccccatctc	150
caaataccat	cccatacatg	gttagggctt	caactcatga	atttggaggc	200
gggcacaatt	tagtccataa	caaatcccct	taatcacatc	aagtaagaca	250
gagttacagg	agggtctgtg	actcctccag	ggccccattt	tcctagaagc	300
caggctaaga	gccccacgac	gcaggaacgg	ccctttctac	tcgaaaacaa	350
agagaaaagc	caaggagaa	ccaacacgga	gtctggctct	gcaaaccggg	400
caggattgtt	aaagacctcc	tgggctcggg	gatgggggtg	gcggattccg	450
gtccacagc	tgcactctcc	aggggcccgt	ggctgagagg	ggggttggct	500
gtgtgtttct	tcctccccct	tcagATCCTG	ACGGGCGAAG	ACTGGAACGA	550
GGTCATGTAC	GACGGGATCA	AGTCTCAGGG	GGGCGTGCG	GGCGGCATGG	600
TGTTCTCCAT	CTATTTTCATT	GTAATGACGC	TCTTTGGGAA	CTgtatcctt	650
catggagaga	gagaagggga	caggcctgga	cctctggcag	aggagagggt	700
gcaggggctc	aagggagggt	actgagagac	ccagataccc	agggcccaag	750
tgggtgtccca	ccagtgggtg	cttttcctga	ctcagacatt	tgagACACC	800
CTCCTGAATG	TGTTCTTGGC	CATCGCTGTG	GACAATCTGG	CCAACGCCCA	850
GGAGCTCACC	AAGgtggagg	cgggtgggaga	atgtttctct	ggcaaagtta	900
ccacctgccc	atggcagatc	aagcactttt	ttggattaac	tgagccacag	950
gaaataacat	tttcaaatag	atkaaaaaaga	tc		982

//

Submission no : 16
Intron 17 : <..119
Exon 18 : 120..226
Intron 18 : 227..>

ccttggttct	gattggtcga	aatatttcaa	atgttgcccc	tggtcagcaa	50
cagggtcaga	agtgagtcce	caaggcctag	ttcatgtttt	gtgaacaaaag	100
attccacgtg	ccttttcagG	ACGAGCAAGA	GGAAGAAGAA	GCAGCGAACC	150
AGAAACTTGC	CCTACAGAAA	GCCAAGGAGG	TGGCAGAAGT	GAGTCCTCTG	200
TCCGCGGCCA	ACATGTCTAT	AGCTGTgtaa	gtcccctaata	ccctgggatg	250
cta~cctggc	tcctgaacgt	gtccgaccac	tatccaggca	cagattttggg	300
aagcagtggg	ggtg				314

//

Submission no : 17
 Intron 18 : <..209
 Exon 19 : 210..1019
 Intron 19 : 1020..>

gcccctagcc	agggtgggagc	catggagggt	tcttgagcag	aggaggctgg	50
gacctgactc	agatgctcac	agactcctag	cattcagggtg	gggagtagag	100
ggtggagagc	aggagtggga	ggctgagatg	tgggttggtt	cgcctgggtc	150
atccatccaa	gctacagtgc	ctagcaatgc	tctaagctcc	tgtgaccatg	200
ccactgcagG	AAAGAGCAAC	AGAAGAATCA	AAAGCCAGCC	AAGTCCGTGT	250
GGGAGCAGCG	GACCAGTGAG	ATGCGAAAGC	AGAACTTGCT	GGCCAGCCGG	300
GAGGCCCTGT	ATAACGAAAT	GGACCCGGAC	GAGCGCTGGA	AGGCTGCCTA	350
CACGCGGCAC	CTGCGGCCAG	ACATGAAGAC	GCACTTGAC	CGGCCGCTGG	400
TGGTGGACCC	GCAGGAGAAC	CGCAACAACA	ACACCAACAA	GAGCCGGGCG	450
GCCGAGCCCA	CCGTGGACCA	GCGCCTCGGC	CAGCAGCGCG	CCGAGGACTT	500
CCTCAGGAAA	CAGGCCCGCT	ACCACGATCG	GGCCCGGGAC	CCCAGCGGCT	550
CGGCGGGCCT	GGACGCACGG	AGGCCCTGGG	CGGGAAGCCA	GGAGGCCGAG	600
CTGAGCCGGG	AGGACCCCTA	CGGCCGCGAG	TCGGACCACC	ACGCCCGGGA	650
GGGCAGCCTG	GAGCAACCCG	GGTTCTGGGA	GGGCGAGGCC	GAGCGAGGCA	700
AGGCCGGGGA	CCCCACCCG	AGGCACGTGC	ACCGGCAGGG	GGGCAGCAGG	750
GAGAGCCGCA	GCGGGTCCCC	GCGCACGGGC	GCGGACGGGG	AGCATCGACG	800
TCATCGCGCG	CACCGCAGGC	CCGGGGAGGA	GGGTCCGGAG	GACAAGGCGG	850
AGCGGAGGGC	GCGGCACCGC	GAGGGCAGCC	GGCCGGCCCC	GGGCGGCGAG	900
GGCGAGGGCG	AGGGTCCCCA	CGGGGGCGAG	CGCAGGAGAA	GGCACCGGCA	950
TGGCGCTCCA	GCCACGTACG	AGGGGGACGC	GCGGAGGGAG	GACAAGGAGC	1000
GGAGGCATCG	GAGGAGGAAg	taagtggagg	tgacctcgaa	tccgcagaat	1050
gacggtaaca	ttaataatac	aacagccaaa	gtagcacgtg	ctgtgtattt	1100
gttataaaat	ata				1113

//

Submission no : 18
Intron 19 : <..67
Exon 20 : 68..531
Intron 20 : 532..>

gtcctgaaac	tttgcctttt	aatcctaaat	cattgttggt	tctttttcat	50
tcacttgcc	tcctcagAGA	GAACCAGGGC	TCCGGGGTCC	CTGTGTCGGG	100
CCCCAACCTG	TCAACCACCC	GGCCAATCCA	GCAGGACCTG	GGCCGCCAAG	150
ACCCACCCCT	GGCAGAGGAT	ATTGACAACA	TGAAGAACAA	CAAGCTGGCC	200
ACCGCGGAGT	CGGCCGCTCC	CCACGGCAGC	CTTGGCCACG	CCGGCCTGCC	250
CCAGAGCCCA	GCCAAGATGG	GAAACAGCAC	CGACCCCGGC	CCCATGCTGG	300
CCATCCCTGC	CATGGCCACC	AACCCCCAGA	ACGCCGCCAG	CCGCCGGACG	350
CCCAACAACC	CGGGGAACCC	ATCCAATCCC	GGCCCCCCCA	AGACCCCCGA	400
GAATAGCCTT	ATCGTCACCA	ACCCACGCGG	CACCCAGACC	AATTCAGCTA	450
AGACTGCCAG	GAAACCCGAC	CACACCACAG	TGGACATCCC	CCCAGCCTGC	500
CCACCCCCCC	TCAACCACAC	CGTCGTACAA	Ggtgagaccc	tctgctctca	550
catcactggg	caggggacct	ggcgtcctgg	agccagaggt		590

//
Submission no : 19
Intron 20 : <..75
Exon 21 : 76..217
Intron 21 : 218..>

ggagtacacc	gaggagttcc	cagagacttg	tgggaaattg	tggagggagc	50
cctgtgttgg	ttcttgtccc	aacagTGAAC	AAAAACGCCA	ACCCAGACCC	100
ACTGCCAAAA	AAAGAGGAAG	AGAAGAAGGA	GGAGGAGGAA	GAAGACGACC	150
GTGGGGGAAGA	CGGCCCTAAG	CCAATGCCTC	CCTATAGCTC	CATGTTTCATC	200
CTGTCCACGA	CCAACCCgtg	agtatggccc	ccgagcagag	ggcagggggg	250
gctgggtctc	ccaccagggg	ggcgggaannn	nnnnnnnnnn	nnnnnnnctc	300
ccaccagggg	ggcgggaagtc	aggccagatt	agaggggcaat		340

//

Submission no : 20
 Intron 21 : <..97
 Exon 22 : 98..227
 Intron 22 : 228..>

gatctcagta	gtggtaggta	acatgagatt	atggaagaaa	agggtttgtg	50
agcctgtggt	ctgagtggac	ctctgcacgc	ccatctgtct	ccaacagCCT	100
TCGCCGCCTG	TGCCATTACA	TCCTGAACCT	GCGCTACTTT	GAGATGTGCA	150
TCCTCATGGT	CATTGCCATG	AGCAGCATCG	CCCTGGCCGC	CGAGGACCCT	200
GTGCAGCCCA	ACGCACCTCG	GAACAACgtg	agtcccacag	agcacacccc	250
ttcctagcct	ggctgctctg	cctcaggcca	ctttctcctg	catccaaaat	300
gctcataggt	aggggtgggat	gttgggggtca	cccctaggca	tagcccttat	350
ggctgctggt	tgagagggga	agctctgatt	ccttggggat	gctcttggga	400
gcaagacatt	ccttgaggca	gtttctctgt	gagcctggtg	gggtggaggt	450
ggcccagagt	gactggggct	gaaaatt			477

//
Submission no : 21
Intron 22 : <..33
Exon 23 : 34..93
Intron 23 : 94..>

gateccactgc	tctcttgctt	ttatccctta	cagGTGCTGC	GATACTTTGA	50
CTACGTTTTT	ACAGGCGTCT	TTACCTTTGA	GATGGTGATC	AAGgtgagtg	100
cagattataa	gtgagaacac	acggtaat	ttttttttaa	gcaagtgcag	150
ggctgggcac	agtggatc				168

//

Submission no : 22
 Intron 23 : <..232
 Exon 24 : 233..339
 Intron 24 : 340..>

gatctaagag	ccggcaagcc	agagctggct	tccatcaggc	aaaggggggc	50
cgcctcatgg	ggcaggggct	ccccactcct	ccctgggagt	cctctggcca	100
ctgcccattc	ctgcaagatg	aggtggcctc	attggettcc	ctgcctctcc	150
ccgagaggct	agagagtggg	tggcagcacc	ccaggggtggg	gatcaggtgg	200
gggttctgag	cacctctctt	tctccccac	agATGATTGA	CCTGGGGCTC	250
GTCCTGCATC	AGGGTGCCTA	CTTCCGTGAC	CTCTGGAATA	TTCTCGACTT	300
CATAGTGGTC	AGTGGGGCCC	TGGTAGCCTT	TGCCTTCACg	taagtctctt	350
cgcaagggtt	tcctcttg				368

//

Submission no : 23
Intron 25 : <..244
Exon 25 : 245..344
Intron 24 : 345..>

gatcttaacc	ccaagacact	tcatctaaag	gaaaaactgc	cataatacac	50
agattatatt	aggtcagetc	actttactgc	catctgctgg	gaagttgtaa	100
taatacaaat	atccatacac	gatggctagg	atgttatcag	cacctccttt	150
aatgtgttgt	ccttgagcag	tgtacaacct	gctcagctgt	acatgataac	200
cctgacagtc	ccccccaccg	cacccccacca	tctcccaatc	tcacCTTGAG	250
CTTTGGCAGC	CGCTTGATGG	TTTTAAGAGG	TCGTAGCACC	CGGAGGACTC	300
GGAGGGATTT	AATCGTGTTG	ATGTCTTTTC	CTTTGCTATT	GCCActgtgg	350
aggaatgttt	aggtgggaag	aaggggaagag	aggaagcaga	ggtcagggttg	400
ggtagggggc	agcccacagc	tccatggggac	cctacccttc	ccaggcctag	450
aagtctgggg	tgagcttggc	acaagcctgc	cctttcctgg	tgaagagtgg	500
tccattttac	cctgt				515

//

Submission no : 24
 Intron 25 : <..67
 Exon 26 : 68..228
 Intron 26 : 229..>

```

ggccactgga ggcagaaggt tggcaggtcc ccagccccctc atgctctctg      50
tcaactccac cccacagGCT GTGTTTGACT GTGTGGTGAA CTCACTTAAA      100
AACGTCTTCA ACATCCTCAT CGTCTACATG CTATTCATGT TCATCTTCGC      150
CGTGGTGGCT GTGCAGCTCT TCAAGGGGAA ATTCTTCCAC TGCCTGACG      200
AGTCCAAAGA GTTTGAGAAA GATTGTCGgt gggctctccgc tttccagcac      250
attcccattg gaaccagcag gtgggcaggg ggggaagtggc tagaggcatt      300
ggccacttgg gctcagagac tggagaagtg atgagccttg gaagtgactc      350
agttgcaacc agcttggatc aagggtagaa agaaaaccgg ttttagaatt      400
tgagtc

```


//

Submission no : 25
 Intron 27 : <..177
 Exon 27 : 178..315
 Intron 26 : 316..>
 Remark : reversed direction!

gatctcaaac	tcttggcctc	aagtgatata	tctgccttgg	cctcctaaag	50
tggttgggatt	acagggcgtga	gcaccatgcc	cggcctccaa	gaccttttctt	100
attgctaagc	tctcaggccc	tttatcctcc	tgctccccag	ggctcctcct	150
ggatagattt	ccagtcgggc	cacttacTGT	GGCCAGCCTT	CTCCCGTGGA	200
CACGGTGAAG	AGGGTCAGCA	GAGCCCACAG	CACATTGTCTG	TAATGGAATT	250
CATACTTCTT	CCACTCCCGG	TCTCGCGCCT	TCACCTCATT	CTTCTCGTAG	300
AGGAGGTATT	TGCCTctgcc	acagagagtq	gggactgtta	gtaaatggga	350
aagaggggct	gtcttgcaact	tgtctttggt	tatcagagac	agggggaggg	400
aaaggaagag	tggtccacca	ncctagactg	cttgggaagc	agtgacttcc	450
catcctgcca	ccatgtgttc	ctgtgcttca	taggggatgn	cgtgtgcaat	500
ctactttttna	ggataa				516

//

Submission no : 26
 Intron 27 : <..84
 Exon 28 : 85..276
 Intron 28 : 277..>

accttcctca	tcacccttgg	gtccctgtct	ctctccttcc	tgcccccttc	50
ctctccctgc	cccattectt	gcagGGTCCT	CAAGCATTCG	GTGGACGCCA	100
CCTTTGAGAA	CCAGGGCCCC	AGCCCCGGGT	ACCGCATGGA	GATGTCCATT	150
TTCTACGTCG	TCTACTTTGT	GGTGTTCCCC	TTCTTCTTTG	TCAATATCTT	200
TGTGGCCTTG	ATCATCATCA	CCTTCCAGGA	GCAAGGGGAC	AAGATGATGG	250
AGGAATACAG	CCTGGAGAAA	AATGAGgtgc	cacttccaat	tccatctgtc	300
ctttaaaaaac	tggggacaca	cacaaacttt	aaaacacaca	caacacccag	350
gaaccccttt	ctaggggtac	ctggggggagg	gaacagaagc	attgtcccaa	400
ccgaatccag	tcttcagggc	agcccttcat	ggagtttcag	aggaaacaca	450
tcatatagtg	tatgtatcag	tcagttttaga	ctaggtttat		489

//

Submission no : 27
 Intron 28 : <..253
 Exon 29 : 254..418
 Intron 29 : 419..>

tagcccatgc	aanaatgggg	aaatgncagt	gcaagttttg	gcagttgntg	50
acatctcaag	caactgtanc	tggtgggata	agaaagcaat	ggtgagaagg	100
aanagaganc	ccaggaatcc	tggtggggg	caananaggc	agagactcaa	150
gcagaagcac	ttgagaaccg	cgacgagtta	gacagagggg	gcccgggtga	200
cagccacctt	cctcctgcct	ctgccgctct	caccactggc	ctctctccccg	250 50
cagAGGGCCT	GCATTGATTT	CGCCATCAGT	GCCAAGCCGC	TGACCCGACA	300
CATGCCGCAG	AACAAGCAGA	GCTTCCAGTA	CCGCATGTGG	CAGTTCGTGG	350
TGTCTCCGCC	TTTCGAGTAC	ACGATCATGG	CCATGATCGC	CCTCAACACC	400
ATCGTGCTTA	TGATGAAGgt	aagtgccccca	caccagcccc	cagcactant	450
taacccccac	ctcgttcctg	cctctaccct	gataaaatga	aaccatttgc	500
agatttccca	ga				512

//

Submission no : 28
Intron 29 : 156
Exon 30 : 157..267
Intron 30 : 268..>

gggtctttcc	tgaactgtgc	ctcctaccag	tgaggttgct	cagaccttgc	50
ctggggctgg	agtgttgcc	ggagaacagc	catgaagctg	acctccccac	100
ttcccacttc	ccacccctgc	tcgctgaccc	ctgctactcc	tgcttctttc	150
ccctagTTCT	ATGGGGCTTC	TGTGGCTTAT	GAAAATGCCC	TGCGGGTGTT	200
CAACATCGCC	TTCACCTCCC	TCTTCTCTCT	GGAATGTGTG	CTGAAAGCCA	250
TGGCTTTTGG	GATTCTGgta	agtaccacct	tggggctaca	gctatgggct	300
tggjanaanc	ccaaggggga	acaatgggtc	ctggatgatg	gtctcccaac	350
gtggcccca	gaacccaac	ctcaaggggtg	gcttcagtat	cctgcccagt	400
ggccacagat	c				411

//

Submission no : 29
 Intron 30 : <..115
 Exon 31 : 116..199
 Intron 31 : 200..>

ctgtccccggg	cactccgctg	atggggcaact	gtgcctctaa	catgcaccgg	50
ccagcctagg	gggccgggaa	ccaagccctc	tgttggcatc	tctgtcttgt	100
gggtccccc	tctagAATTA	TTCCGCGAT	GCCTGGAACA	TCTTCGACTT	150
TGTGACTGTT	CTGGGCAGCA	TCACCGATAT	CCTCGTGA	GAGTTTGGGg	200
taagtctccc	tccagcttct	ctctgggtga	ctctgggctg	gacgaggcag	250
gcgggcagggg	gcggggggagc	ggtcccagag	gcagtgtgtc	ccggaagcca	300
tagctgcttg	agccagcact	tggccatgac	cagagaggga	gaactggggc	350
cccggggaca	agggcagccc	ctcaggaggg	cattgtgggg	agatgggggt	400
aacaaagctt	ggctgtaggg				420

//
Submission no : 30
Intron 31 : <..148
Exon 32 : 149..265
Intron 32 : 266..>

ttaatagtgc	tttctctctc	cctccttatt	tggggtctgg	cttgcctttt	50
tcctgttgg	tggcttcatg	taggggcctc	tgtgagtgg	gacagctctg	100
agcctttggg	gtgggtggat	ggtcacccct	cttccctccat	ctccccagAA	150
TAACTTCATC	AACCTGAGCT	TTCTCCGCCT	CTTCCGAGCT	GCCCGGCTCA	200
TCAAACCTTCT	CCGTCAGGGT	TACACCATCC	GCATTCTTCT	CTGGACCTTT	250
GTGCAGTCCT	TCAAGgtgag	tcctcgctccc	tgtgctggc	ccaggggctg	300
agaagacagg	tgaccctcat	gctctggctg	aatgtagaag	tc	342

//

Submission no : 31
 Intron 32 : <..156
 Exon 33 : 157..222
 Intron 33 : 223..394
 Exon 34 : 395..509
 Intron 34 : 510..>

cccccaagaa	gaatgcccac	caagccctgg	aaggactctg	gcacgtggca	50
tatgyccacc	caacccagtq	gggcagagca	ctgggacaag	ggaggaagac	100
tgcagtgcgg	ctgaggggacc	cccagcactc	ttcttcattg	ccttttttcc	150
caccagGCCC	TGCCTTATGT	CTGTCTGCTG	ATCGCCATGC	TCTTCTTCAT	200
CTATGCCATC	ATTGGGATGC	AGgtgagtgt	cgtgtcccta	aggttcccag	250
agcctcccaa	ggaggggcagc	cacccttaga	aaggggtggg	tcagaggagc	300
ctgggttcaca	gaagcagcca	tggaggttga	gctgggtttc	ccagaagcca	350
ctggaggaat	ggcagccccct	ggtcgtcacc	cwmcaattcc	acagGTGTTT	400
GGTAACATTG	GCATCGACGT	GGAGGACGAG	GACAGTGATG	AAGATGAGTT	450
CCAAATCACT	GAGCACAATA	ACTTCCGGAC	CTTCTTCCAG	GCCCTCATGC	500
TCTCTTCCGg	tcagaagggg	acctgctctg	ataatnctgt	ttccgtgggg	550
tggggtgcc					559

//

Submission no : 32
Intron 34 : <..94
Exon 35 : 95..245
Intron 35 : 246..>
Sequence : 316

tcagagccat	gctcactgtg	tgctccactc	ctgaggaggc	gttggtacca	50
gtcagggctg	ggtgtccgag	tctctgattt	ctccctgtcc	tcagGAGTGC	100
CACCGGGGAA	GCTTGGCACA	ACATCATGCT	TTCCTGCCTC	AGCGGGAAAC	150
CGTGTGATAA	GAACTCTGGC	ATCCTGACTC	GAGAGTGTGG	CAATGAATTT	200
GCTTATTTTT	ACTTTGTTTC	CTTCATCTTC	CTCTGCTCGT	TTCTGgtgag	250
tctgtggaca	ctgtgagggc	cgtctgggct	ccctaagcct	ggcttccttt	300
cagggagtgg	ttctgt				316

//

Submission no : 33
Intron 35 : <..211
Exon 36 : 212..339
Intron 36 : 340..>

gtgtagtgag	aactcacctc	tccattcccc	agtctctttc	tgtctctgtc	50
tcatttcctt	tcccatctt	ctctctatcc	ctctctccat	ctggggcctc	100
tgtgtctgtc	tttgggtctg	tctgtccgtc	tgactgtctg	tatccttctc	150
acttcactca	ttcattccct	cggctctctg	cccattctct	cttgggtccc	200
ggtccccaca	gATGCTGAAT	CTCTTTGTCTG	CCGTCATCAT	GGACAACTTT	250
GAGTACCTCA	CCCGAGACTC	CTCCATCCTG	G3CCCCCACC	ACCTGGATGA	300
GTACGTGCGT	GTCTGGGCCG	AGTATGACCC	CGCAGCTTGg	taagaagtca	350
ccccgaatcc	tccagccaca	atactcacct	ctccctggaa	ctggaacacg	400
ggctaggcta	ggnccccaga	ctctggagca	ctgaactcct	ggggctccta	450
gcaggggtct	cacaggttca	gtcaggagag	aagatataag	aatcatcacc	500
cttgcatacc	ccagattaaa	cacgtagggt	gccaacctgc	ccaaaccctg	550
gaggactttc	tgggaaatga	ggagggcgtc	aaccatgaga	tgtctgaaga	600
gccctctcct	cctacgagtc	tctcctgtct	ctcactgtga	agtctccaga	650
tggtaggat	cgattagcca	ggctccagga	gaaaccaaca	gact	694

//

Submission no : 34
 Intron 36 : <...213
 Exon 37 : 214..310
 Intron 37 : 311...>

aagggaggtg	cctgcagtcc	cgaactcgac	tgacatccta	cacccctggg	50
tctccccagt	gtctgggaat	gtactgggaa	ttcacttgtc	cccagtctct	100
cccactcctt	gaagccaggg	acaccccagc	ctcgggcatc	atgacctcgt	150
tgtgtgcccc	gggagcccgt	gtgaacccat	tgacctgcact	aacccccctt	200
cttctccttt	cagCGGTCGG	ATTCATTATA	AGGATATGTA	CAGTTTATTA	250
CGAGTAATAT	CTCCCCCTCT	CGGCTTAGGC	AAGAAATGTC	CTCATAGGGT	300
TGCTTGCAAG	gtttgacttc	cactaaaacc	tgctagcatc	catggaatga	350
gtgtggcctt	gggttcctca	atatatatat	ttcatatata	tatatatata	400
tatctctctc	tctctaaaaa	aacagagcca	tctctctttc	ttgcattaaa	450
ctagaaaact	ctcttagcca	acag			474

//

Submission no : 35
 Intron 37 : <..82
 Exon 38 : 83..188
 Intron 38 : 189..>

cctgggtagg	ggcgggcgcg	gctcacggga	gacccaggag	ggatgcctgg	50
gaatgactgc	gcttgccttg	ggttttctgt	agCGGCTTCT	GCGGATGGAC	100
CTGCCCCTCG	CAGATGACAA	CACCGTCCAC	TTCAATTCCA	CCCTCATGGC	150
TCTGATCCGC	ACAGCCCTGG	ACATCAAGAT	TGCCAAGGgt	aaggaagggga	200
caggggcggg	cacagacagg	cgtgacaggg	tggaactggg	gatctcctcc	250
ctaccccaaa	ctagaggatc	tgctgtcacc	acccggatct	tcattcactc	300
ttccattcat	tcgttcacac	ggnnntttttg	gnnnttggnn	ntttggtggt	350
tttttttttt	ttttgagaca	gagtccttgct	ctgttgccca	ggcagcagtg	400
cggtgacatg	atc				413

//

Submission no : 36
 Intron 38 : <..96
 Exon 39 : 97..204
 Intron 39 : 205..369
 Exon 40 : 370..470
 Intron 40 : 471..>

gggtctcgtt	ctcgggagcc	tatggctttg	cagctgaccc	agagtccagc	50
tgacaccag	gcaggcagtc	agggctctgtc	tacaccccca	ttgcagGAGG	100
AGCCGACAAA	CAGCAGATGG	ACGCTGAGCT	GCGGAAGGAG	ATGATGGCGA	150
TTTGGCCCAA	TCTGTCCAG	AAGACGCTAG	ACCTGCTGGT	CACACCTCAC	200
AAGTgtaaga	gctgagccca	gccctgggat	ccaatccacc	aggacagatg	250
gag_gggagg	gaaaggggag	gcctggggag	agtgttggct	gggctggtat	300
acacagggac	ccaggacaag	gtccccaaag	angcctgccc	ttggtgagct	350
caccgtgtgt	gtccccagC	CACGGACCTC	ACCGTGGGGA	AGATCTACGC	400
AGCCATGATG	ATCATGGAGT	ACTACCGGCA	GAGCAAGGCC	AAGAAGCTGC	450
AGGCCATGCG	CGAGGAGCAG	gtgcgtgtt	cgcgctctg	gggacatctg	500
ggctggggac	agtggcttgc	atgtcaccac	gggaaccaac	tggaatatga	550
gggtggctga	gcccagggc	aggtccctga	aaagttagggg	ctggtgcaca	600
gcagctcaca	cctgcaatct	cagtgccttg	agaggc		636

//

Submission no : 37
 Intron 40 : <...407
 Exon 41 : 408..517
 Intron 41 : 518..625
 Exon 42 : 626..764
 Intron 42 : 765...>
 Sequence : 829

gatcttcagg	gccatgggag	ctgcaggaag	gactctggct	ttttcccca	50
gcaagtggga	gccatggagg	gttctaagca	aaggagggat	aggacctgac	100
tcaagtgtc	atgggcgccc	tctgggtggct	cttgtggaac	agtgggggtg	150
aaggtaggag	cgggagacct	gggagaaggt	gcctgcagt	agagatgagg	200
acgcgggacc	aggctggggc	tatgacttgg	gtggaggagt	gagaagtgg	250
ccagttctgc	gtggaattgg	aagggtctag	atggatgaga	cctgagagag	300
tgtgtgtgtg	tgtgtgtgtg	tatactggg	atgtcgcaat	gccttctggg	350
taccaccgtc	caccacccca	cccttgtcca	cacactgtc	tctgccccat	400
tccccagGAC	CGGACACCCC	TCATGTTCCA	GCGCATGGAG	CCCCCGTCCC	450
CAACGCAGGA	AGGGGGACCT	GGCCAGAACG	CCCTCCCCTC	CACCCAGCTG	500
GACCCAGGAG	GAGCCCTgtg	agtgtcacc	ctgccaggga	ggtggagtgt	550
gggggtgccg	tggccccac	gttctggaag	ctgcccagc	gcccactgct	600
accccggcct	ctgtcccca	tgcagGATGG	CTCACGAAAG	CGGCCTCAAG	650
GAGAGCCCCGT	CCTGGGTGAC	CCAGCGTGCC	CAGGAGATGT	TCCAGAAGAC	700
GGGCACATGG	AGTCCGGAAC	AAGGCCCCCC	TACCGACATG	CCCAACAGCC	750
AGCCTAACTC	TCAGgtgcct	ctgtcccca	actccccaat	ggctcccagg	800
gcccgggtgg	ttgcggtgga	aggaaccat			829

//

Submission no : 38
 Intron 42 : <..219
 Exon 43 : 220..333
 Intron 43 : 334..>

```

tcactgcaac ctccaccttc cagtctcaag tgattcctcc tgcctcagcc      50
tcccaagtea ctggattaca ggcgcccacc accatgctca ggtatttttt      100
tttgatattt tagtagagac ggggtttcac aatgttggtc aggctgggtc      150
cgaactgctg nccattgtga tctggagggtc aggccccaga gctcatctgg      200
ctttgccatt cgtccgcagT CCGTGGAGAT GCGAGAGATG GGCAGAGATG      250
GCTACTCCGA CAGCGAGCAC TACCTCCCCA TGGAAGGCCA GGGCCGGGCT      300
GCCTCCATGC CCCGCCTCCC TGCAGAGAAC CAGgtgaggg ctttcaccac      350
tgccctgggg ctggaccctt cactctgcac tgggtagggc caggcccccc      400
cacaagcagc ccagtgcac cctcctgcc ggactcaggc ctgggtaggg      450
actccttcag tctctgaagc agtctgcagg cccacccac cacctgggtca      500
cacctggagc acctgcagac cctcctccct cacagaggac agagaggaaa      550
gtgctcccc tggggcagag ggcagtggcc actgcaaaat ggtctctggc      600
tgccctgggt ggaggctgca gacaggggag gttgtggaar atttgtgggt      650
gcagcagggg tcaacagggc cagctgagac ctgccacgaa gawcctttga      700
ggccaggagt ttgagaccag gttgggcaac atagcaaaac cctgtctctt      750
ttttttttt gagacggagt ttcactcttg ttgcccagc ctggagtgac      800
a                                                                801

```

//

Submission no : 39
Intron 43 : <..83
Exon 44 : 84..119
Intron 44 : 120..>
Sequence : 329

cctcctcaact	cttcctctctt	gcctttatat	ttattttctt	ctttctgttt	50
tttctgtgtg	caccatccat	ggggctgtga	cagAGGAGAA	GGGGCCGGCC	100
ACGTGGGAAT	AACCTCAGTg	tatgtacggc	ctgccaggg	cccagcaggc	150
tccggccccc	tcttctctcc	cacccnccct	ccagggagtc	ccgtaatctc	200
taccggctcc	cggacccccc	cctttctttg	gcaatcgcac	cctctccccc	250
ccatggagcc	caatccttgt	gtgtggtgtc	ctgtgtgtgc	cctgacccat	300
aagcctggtg	gggcggccat	ccccatcct			329

//

Submission no : 40
Intron 44 : <...166
Exon 45 : 167..353
Intron 45 : 354..>

gatcaggggg	agccaaggcc	ccatggcatc	ccctggcccc	tgccccagga	50
tggtcacacc	gcagtcaccg	aaggccacca	ccaggctgcc	acaatggggc	100
aggaaggacc	gggaccactt	ggtgctagct	gctgacccca	gcccaccggc	150
ctgtccccctc	ccccagACCA	TCTCAGACAC	CAGCCCCATG	AAGCGTTCAG	200
CCTCCGTGCT	GGGCCCCAAG	GCCCGACGCC	TGGACGATTA	CTCGCTGGAG	250
CGGGTCCCGC	CCGAGGAGAA	CCAGCGGCAC	CACCAGCGGC	GCCGCGACCG	300
CAGCCACCGC	GCCTCTGAGC	GCTCCCTGGG	CCGCTACACC	GATGTGGACA	350
CAGgtgggca	gccctgtggt	gctcaggga	aagcagaaca	gaggagagga	400
gaggggagga	gaaggcaggg	cggaggagac	actaaggaag	aagaaagga	450
gaggcctcca	tggagagggg	acagagcggg	ccaggcagcg	gctgcaggaa	500
cctgggtact	acccctccc	cccaaccac	tgacctgcct	cggttcaggg	550
gatc					554

//

Submission no : 41
Intron 45 : <..31
Exon 46 : 32..285
Intron 46 : 286..>

ctgtgtgctg	tctgaccctc	acccggccca	ggCTTGGGGA	CAGACCTGAG	50
CATGACCACC	CAATCCGGGG	ACCTGCCGTC	GAAGGAGCGG	GACCAGGAGC	100
GGGGCCGGCC	CAAGGATCGG	AAGCATCGAC	AGCACCACCA	CCACCACCAC	150
CACCACCACC	ATCCCCCGCC	CCCCGACAAG	GACCGCTATG	CCCAGGAACG	200
GCCGGACCAC	GGCCGGGCAC	GGGCTCGGGA	CCAGCGCTGG	TCCCGCTCGC	250
CCAGCGAGGG	CCGAGAGCAC	ATGGCGCACC	GCCAGgtggg	tgcggctgca	300
agtgacccca	ggctgggctc	ggccgggagg	cggggaggag	agaaggggat	350
accccatcca	acagccactc	taggcaaagg	tccccggatc	ccggctgtga	400
ccacctccca	tcttgcccc	aagccaccgg	ggtgcccggc	ggccggagcg	450
gagcacggat	c				461

//

Submission no : 42
Intron 46 : <..279
Exon 47 : 280..>
Stop codon : 280..282
UTR 3' : 283..>

tttctcattt	ctctttttcac	ttttgttgtg	ttggttttcgg	actcctccccc	50
tccctgtctc	actccccctc	ctccccctccc	tcctccctgt	ggctgttget	100
tttttccatt	caatgtcctg	tgtccccccet	ctcctcctcc	tcctcctcct	150
ccccctcctc	cctctcctcc	cggccccctct	cccttcgctc	ccctcatctt	200
cctcccaatc	ccgtgtctcc	tttgattttg	ttgtatcttt	ttttttgatt	250
tccttttgtt	caatttttcgt	gtagggcagT	AGTTCCGTAA	GTGGAAGCCC	300
AGCCCCCTCA	ACATCTGGTA	CCAGCACTCC	GCGGCGGGGC	CGCCGCCAGC	350
TCCCCCAGAC	CCCCTCCACC	CCCCGGCCAC	ACGTGTCCTA	TTCCCCTGTG	400
ATCCGTAAGG	CCGGCGGCTC	GGGGCCCCCG	CAGCAGCAGC	AGCAGCAGCA	450
GCAGCAGCAG	CAGGCGGTGG	CCAGGCCGGC	CGGGCGGCCA	CCAGCGGGCC	500
TCGGAGGTAC	CCAGGCCCCA	CGGCCGAGCC	TCTGGCCGGA	GATCGGCGCC	550
CACGGGGGGC	CACAGCAGCG	GCCGCACGCC	CAGGATGGAG	AGGCGGGTCC	600
AGGCCCCGCC	CGGAGCGAGT	CTCCAGGGCC	TGGTCGACAC	GGCGGGGGCC	650
GGCTGGCGGC	AGTC				664

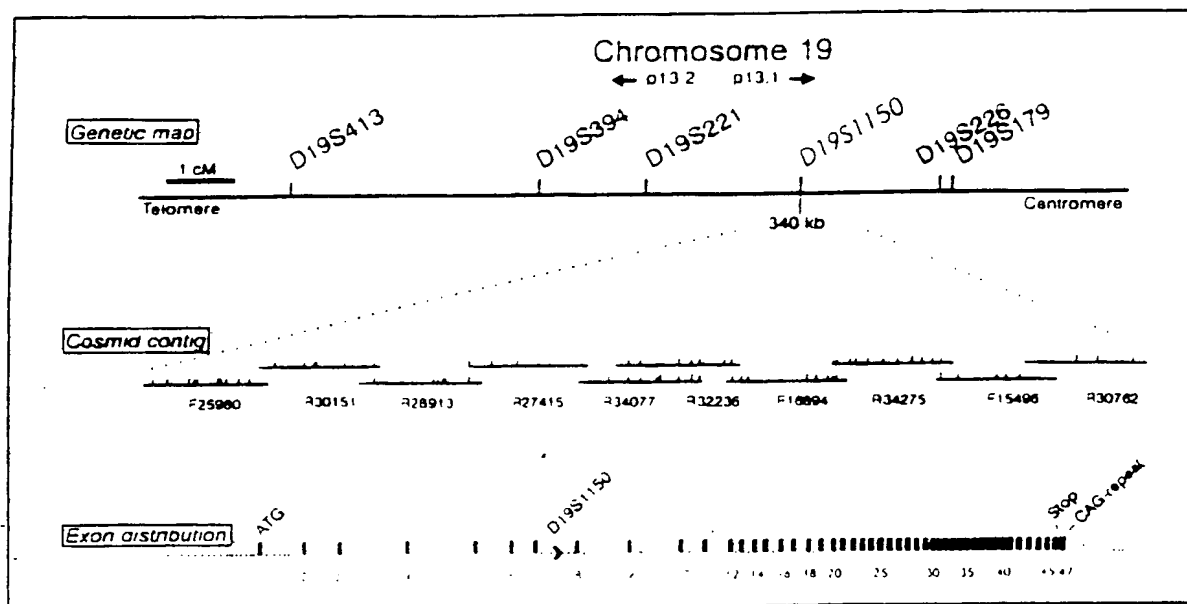


Fig. 2

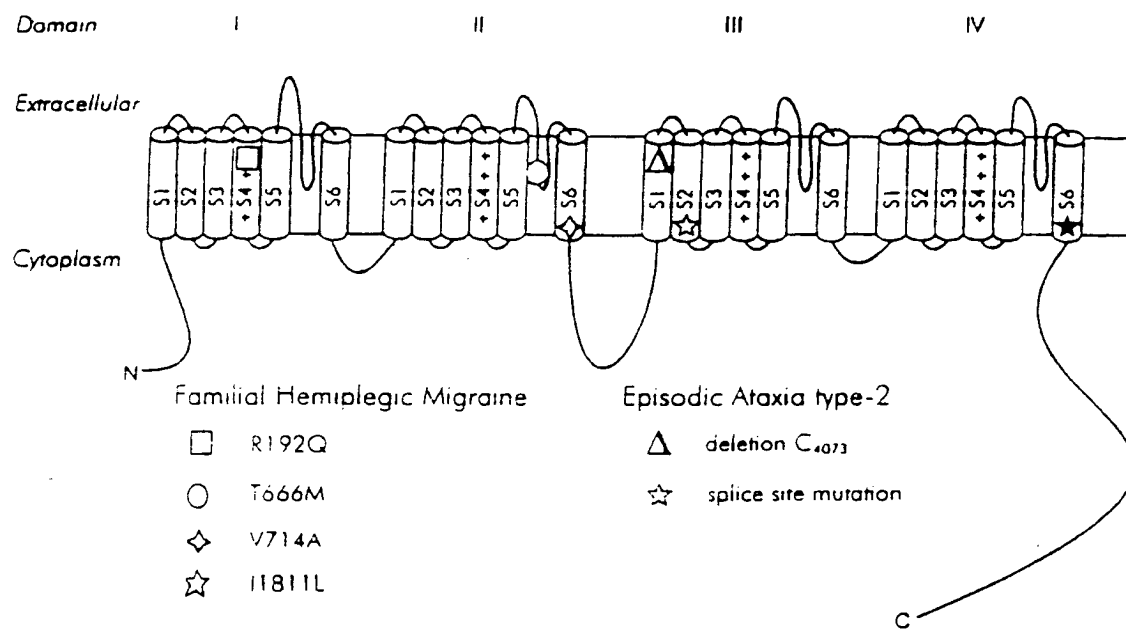


Fig. 3

Figure 4

```

atggcccgcttcggagacgagatgccggcccgctacgggggaggaggctccggggcagcc      60
M A R F G D E M P A R Y G G G G S G A A      20
gccggggtggtcgtgggcagcggaggcgggcgaggagccggggcagccggcagggcggg      120
A G V V V G S G G G R G A G G S R Q G G      40
cagcccggggcgcaaaggatgtacaagcagtcaatggcgagagagcgcgaccatggca      180
Q P G A Q R M Y K Q S M A Q R A R T M A      60
ctctacaacccccatccccgtccgacagaactgcctcacgggttaaccgggtctctctctc      240
L Y N P I P V R Q N C L T V N R S L F L      80
ttcagcgaagacaacgtggtgagaaaaatcgccaaaaagatcacccaatggcctcccttt      300
F S E D N V V R K Y A K K I T E W P P F      100
gaatatatgatttttagccaccatcatagcgaattgcatcgctcctcgactggagcagcat      360
E Y M I L A T I I A N C I V L A L E Q H      120
ctgcctgatgatgacaagaccccgatgtctgaacggctggatgacacagaaccatacttc      420
L P D D D K T P M S E R L D D T E P Y F      140
attggaattttttgtttcgaggctggaattaaaatcattgcccttggggtttgccttcac      480
I G I F C F E A G I K I I A L G F A F H      160
aaaggctcctacttgaggaatggctggaatgtcatggactttgtggtggtgctaacgggc      540
K G S Y L R N G W N V M D F V V V L T G      180
atcttggcgacagttgggacggagtttgacacggacgctgagggcagttcgagctg      600
I L A T V G T E F D L R T L R A V R V L      200
cggccgctcaagctggtgtctggaatcccaagtttacaagtcgtcctgaagtcgatcatg      660
R P L K L V S G I P S L Q V V L K S I M      220
aaggcgatgatccctttgctgcagatcgccctcctcctattttttgcaatccttattttt      720
K A M I P L L Q I G L L L F F A I L I F      240
gcaatcatagggttagaatttttatatgggaaaatttcataccacctgctttgaagagggg      780
A I I G L E F Y M G K F H T T C F E E G      260
acagatgacattcaggggtgagtcctccggctccatgtgggacagaagagcccgccgcacc      840
T D D I Q G E S P A P C G T E E P A R T      280
tgccccaatgggaccaaattgtcagccctactgggaaggggcccaacaacgggatcactcag      900
C P N G T K C Q P Y W E G P N N G I T Q      300
ttcgacaacatcctgtttgcagtgctgactgttttccagtgacataaccatggaagggtgg      960
F D N I L F A V L T V F Q C I T M E G W      320
actgatctcctctacaatagcaacgatgcctcagggaacacttggaaactgggtgtacttc      1020
T D L L Y N S N D A S G N T W N W L Y F      340
atccccctcatcatcaggtcctcttttttatgtgaaccttgtgctgggtgtgtgtca      1080
I P L I I I G S F F M L N L V L G V L S      360
ggggagttttgccaaagaaagggaacgggtggagaaccggcgggccttttctgaagctgagg      1140
G E F A K E R E R V E N R R A F L K L R      380
cggcaacaacagattgaacgtgagctcaatgggtacatggaatggatctcaaaagcagaa      1200
R Q Q Q I E R E L N G Y M E W I S K A E      400
gaggtgatcctcgccgaggatgaaactgacggggagcagagggcatccctttgatggagct      1260
E V I L A E D E T D G E Q R H P F D G A      420
ctgcgggagaaccaccataaagaaaaagcaagacagatttgcctcaaccccgagagggtgag      1320
L R R T T I K K S K T D L L N P E E A E      440
gatcagctggctgatatagcctctgtgggttctcccttcgcccagccagcattaaaagt      1380
D Q L A D I A S V G S P F A R A S I K S      460
gccaaagctggagaactcgaccttttttcacaaaaaggagaggaggatgcgtttctacatc      1440
A K L E N S T F F H K K E R R M R F Y I      480
cgccgcatggtcaaaaactcaggccttctactggactgtactcagtttggtagctctcaac      1500
R R M V K T Q A F Y W T V L S L V A L N      500
acgctgtgtgttgcatttgttcaactacaccagcccgagtggtctctccgacttctttac      1560
T L C A V A I V H Y N Q P E W L S D F L Y      520
tatgcagaattcattttcttaggactctttatgtccgaaatgtttataaaaaatgtacggg      1620
Y A E F I F L G L F M S E M F I K M Y G      540
cttgggacgcgcccttacttccactcttcccttcaactgctttgactgtgggttatcatt      1680
L G T R P Y F H S S F N C F D C G V I I      560
gggagcatcttcgaggtcatctgggctgtcataaaacctggcacatcctttggaatcagc      1740

```

G S I F E V I W A V I K P G T S F G I S	580
gtgttacgagccctcaggttattgctattttcaaagtcacaaagtactgggcatctctc	1800
V L R A L R L L R I F K V T K Y W A S L	600
agaaacctggctctctctcctcaactccatgaagtccatcatcagcctgttgtttctc	1860
R N L V V S L L N S M K S I I S L L F L	620
cttttctgttcattgtcgtcttctcgcccttttgggaatgcaactcttcggcgccagttt	1920
L F L F I V V F A L L G M Q L F G G Q F	640
aatttctgatgaagggactcctcccacaaacttcgatactttccagcagcaataatgacg	1980
N F D F G T P P T N F D T F P A A I M T	660
gtgtttcagatcctgacggggaagactggaacgaggtcatgtacgacgggatcaagtct	2040
V F Q I L T G E D W N E V M Y D G I K S	680
caggggggctgacgggcgccatggtgttctccatctatttctgtactgacgctcttt	2100
Q G G V Q G G M V F S I Y F I V L T L F	700
gggaactacacctcctgaatgtgttcttggccatcgctgtggacaatctggccaacgcc	2160
G N Y T L L N V F L A I A V D N L A N A	720
caggagctcaccaaggacgagcaagaggaagaagcagcgaaccagaaacttgcccta	2220
Q E L T K D E Q E E E A A N Q K L A L	740
cagaaagccaaggaggtggcagaagtgaagtcctctgtccgcggccaacatgtctatagct	2280
Q K A K E V A E V S P L S A A N M S I A	760
gtgaaagagcaacagaagaatcaaaagccagccaagtcctgtgtgggagcagcggaccagt	2340
V K E Q Q K N Q K P A K S V W E Q R T S	780
gagatgcgaaagcagaacttgctggccagccgggagggccctgtataacgaaatggacccg	2400
E M R K Q N L L A S R E A L Y N E M D P	800
gacgagcgtggaaggctgcctacacgcggcacctgctggccagacatgaagacgcacttg	2460
D E R W K A Y T R H L R P D M K T H L	820
gaccggccgctggtggtggaccgcagggagaaaccgcaacaaccaacaagagccgg	2520
D R P L V V D P Q E N R N N N T N K S R	840
gcggccgagccccaccgtggaccagcgccctcgccagcagcgccgaggacttcctcagg	2580
A A E P T V D Q R L G Q Q R A E D F L R	860
aaacaggccccgctaccacgatcgggccccgggacccccagcggtcggcgggcctggacgca	2640
K Q A R Y H D R A R D P S G S A G L D A	880
cggaggccccctgggcggaagccagggagggcgagctgagccgggaggacccctacggccgc	2700
R R P W A G S Q E A E L S R E D P Y G R	900
gagtcggaccaccacgccccgggagggcgagcctggagcaaccgggttctgggagggcgag	2760
E S D H H A R E G S L E Q P G F W E G E	920
gccgagcgaggcaaggccgggggacccccaccggaggcacgtgcaccggcgaggggggcagc	2820
A E R G K A G D P H R R H V H R Q G G S	940
agggagagccgcagcgggtccccgcgcacgggcgcggacggggagcatcgacgtcatcgc	2880
R E S R S G S P R T G A D G E H R R H R	960
gcgcaccgcaggccccgggagggaggtccggaggacaaggcgagcggagggcgcgccac	2940
A H R R P G E E G P E D K A E R R A R H	980
cgcgagggcgagccggccggccggggcgagggcgagggcgaggggtcccgacgggggc	3000
R E G S R P A R G G E G E G E G P D G G	1000
gagcgcaggagaaggcacccggcatggcgctccagccacgtacgagggggacgcgcggagg	3060
E R R R R H R H G A P A T Y E G D A R R	1020
gaggacaaggagcggaggcatcggaggaggaaagagaaccaggggtccgggggtccctgtg	3120
E D K E R R H R R R K E N Q G S G V P V	1040
tcggggcccccaacctgtcaaccacccggccaatccagcaggacctggggccgccaagaccca	3180
S G P N L S T T R P I Q Q D L G R Q D P	1060
ccccctggcagaggatattgacaacatgaagaacaacaagctggccaccgcggagtcggcc	3240
P L A E D I D N M K N N K L A T A E S A	1080
gctccccacggcagccttggccacgcggcctgccccagagcccagccaagatgggaaac	3300
A P H G S L G H A G L P Q S P A K M G N	1100
agcaccgacccccggccccatgctggccatccctgccatggccaccaacccccagaacgcc	3360
S T D P G P M L A I P A M A T N P Q N A	1120
gccagccgcgggacgccccaaacccggggaacccatccaatcccgccccccccaaagacc	3420
A S R R T P N N P G N P S N P G P P K T	1140

cccgagaatagccttatcggtcaccaacccccagcgccacccagaccaattcagctaagact 3480
 P E N S L I V T N P S G T Q T N S A K T 1160
 gccaggaaacccgaccacaccacagtggtacatccccccagcctgcccacccccctcaac 3540
 A R K P D H T T V D I P P A C P P P L N 1180
 cacaccgtcgtacaagtgaacaaaaacgccaaacccagacccactgccccaaaaaagaggaa 3600
 H T V V Q V N K N A N P D P L P K K E E 1200
 gagaagaaggaggagggaagaagacgacccgtggggaagacggccctaagccaatgcct 3660
 E K K E E E E D D R G E D G P K P M P 1220
 ccctatagctccatgttcctcctgtccacgaccaaccccccttcgcccgcctgtgccattac 3720
 P Y S S M F I L S T T N P L R R L C H Y 1240
 atcctgaacctgcgctactttgagatgtgcacccctcatggctcattgccatgagcagcatc 3780
 I L N L R Y F E M C I L M V I A M S S I 1260
 gccctggccgcccaggaccctgtgcagcccaacgcacccctcggaacaacgtgctgcgatac 3840
 A L A A E D P V Q P N A P R N N V L R Y 1280
 tttgactacgtttttacaggcgtctttacctttgagatgggtgatcaagatgattgacctg 3900
 F D Y V F T G V F T F E M V I K M I D L 1300
 gggctcgtcctgcacaggggtgcctactctccgtgacctctggaatattctcgacttcata 3960
 G L V L H Q G A Y F R D L W N I L D F I 1320
 gtggctcagtggggcccctggtagcctttgccttcactggcaatagcaaaggaaaagacatc 4020
 V V S G A L V A F A F T G N S K G K D I 1340
 aacacgattaaatccctccgagtcctccgggtgctacgacctcttaaaacccatcaagcgg 4080
 N T I K S L R V L R V L R P L K T I K R 1360
 ctgccaaaagctcaaggctgtgtttgactgtgtggtgaactcacttaaaaacgtcttcaac 4140
 L P K L K A V F D C V V N S L K N V F N 1380
 atcctcatcgtctacatgctattcctatgttctcctccgctgggtggtgctgcagctcttc 4200
 I L I V M L F M F I F A V V A V Q L F 1400
 aaggggaaatttctccactgcactgacgagtcctaaagagtttgagaaagattgtcgagggc 4260
 K G K F F H C T D E S K E F E K D C R G 1420
 aaatacctcctctacgagaagaatgaggtgaaggcgagaccgggagtggaagaagtat 4320
 K Y L L Y E K N E V K A R D R E W K K Y 1440
 gaattccattacgacaatgtgctgtgggctctgctgacctctctcaccgtgtccacggca 4380
 E F H Y D N V L W A L L T L F T V S T A 1460
 gaaggctggccacaggtcctcaagcattcggtggacgccacctttgagaaccaggggccc 4440
 E G V P Q V L K H S V D A T F E N Q G P 1480
 agccccgggtaccgcatggagatgtccattttctacgtcgtctactttgtggtgttcccc 4500
 S P G Y R M E M S I F Y V V Y F V V F P 1500
 ttctttctttgtcaatatctttgtggccttgatcatcatcaccttccaggagcaaggggac 4560
 F F F V N I F V A L I I I T F Q E Q G D 1520
 aagatgatggaggaatacagcctggagaaaaatgagagggcctgcattgatttcgccatc 4620
 K M M E E Y S L E K N E R A C I D F A I 1540
 agtgccaagccgctgaccgacacatgccgcagaacaagcagagcttccagttaccgcatg 4680
 S A K P L T R H M P Q N K Q S F Q Y R M 1560
 tggcagttcgtggtgtctccgcttttcgagtacacgatcatggccatgatcgccctcaac 4740
 W Q F V V S P P F E Y T I M A M I A L N 1580
 accatcgtgcttatgatgaagttctatggggcttctgtggcttatgaaaatgccctgagg 4800
 T I V L M M K F Y G A S V A Y E N A L R 1600
 gtgttcaacatcgcccttcacctccctcttctctctggaatgtgtgctgaaagccatggct 4860
 V F N I A F T S L F S L E C V L K A M A 1620
 tttgggattctgaattatttccgcatgcctggaacatcttcgactttgtgactgttctg 4920
 F G I L N Y F R D A W N I F D F V T V L 1640
 ggcagcatcaccgatatcctcgtgactgagtttgggaataacttcatcaacctgagcttt 4980
 G S I L V T E F G N N F I N L S F 1660
 ctccgctcttccgagctgcccggtcatcaaaacttctccgctcaggggttacaccatccgc 5040
 L R L F R A A R L I K L L R Q G Y T I R 1680
 attcttctctggacctttgtgcagtccttcaaggccctgccttatgtctgtctgctgatc 5100
 I L L W T F V Q S F K A L P Y V C L L I 1700
 gccatgctcttcttcatctatgccatcattgggatgcaggtgtttggtaacattggcatc 5160

A M L F F I Y A I I G M Q V F G N I G I 1720
gacgtggaggacgaggacagtgatgaagatgagttccaaatcactgagcacaataacttc 5220
D V E D E D S D E D E F Q I T E H N N F 1740
cggaccttcttccaggccctcatgcttcttctccggagtgccaccggggaagcttggcac 5280
R T F F Q A L M L L F R S A T G E A W H 1760
aacatcatgctttcctgcctcagcgggaaaccgtgtgataagaactctggcatcctgact 5340
N I M L S C L S G K P C D K N S G I L T 1780
cgagagtgtggcaatgaatttgcttatttttactttgtttccttcatcttctctgctcg 5400
R E C G N E F A Y F Y F V S F I F L C S 1800
tttctgatgctgaatctctttgtcgccgtcatcatggacaactttgagtacctcaccgga 5460
F L M L N L F V A V I M D N F E Y L T R 1820
gactcctccatcctgggccccaccacctggagtacgtgctgtctgggcccagtat 5520
D S S I L G P H H L D E Y V R V W A E Y 1840
gacccccgagcttgcggtcggattcattataaggatatgtacagtttattacgagtaata 5580
D P A A C G R I H Y K D M Y S L L R V I 1860
tctccccctctcggcttaggcaagaaatgtcctcatagggttgcttgcaagcggcttctg 5640
S P P L G L G K K C P H R V A C K R L L 1880
cggatggacctgccgtcgcagatgacaacaccgtccacttcaattccaccctcatggct 5700
R M D L P V A D D N T V H F N S T L M A 1900
ctgatccgcacagccctggacatcaagattgccaaggaggagccgacaaacagcagatg 5760
L I R T A L D I K I A K G G A D K Q Q M 1920
gacgctgagctgcggaaggagatgatggcgatttgcccaatctgtcccagaagacgcta 5820
D A E L R K E M M A I W P N L S Q K T L 1940
gacctgctggtcacacctcacaagtccacggacctcaccgtggggaagatctacgcagcc 5880
D L L V T P H K S T D L T V G K I Y A A 1960
atgatgatcatggagtactaccggcagagcaaggccaagaagctgcaggccatgcgcgag 5940
M M I M E Y Y R Q S K A K K L Q A M R E 1980
gagcaggacccggacacccctcatgttccagcgcagtgagcccccgctccccaacgcaggaa 6000
E Q D R T P L M F Q R M E P P S P T Q E 2000
gggggacctggccagaacgcctccctccctcccccagctggaccaggaggagccctgatg 6060
G G P G Q N A L P S T Q L D P G G A L M 2020
gctcacgaaagcggcctcaaggagagcccgctcctgggtgacctcagcgtgccaggagatg 6120
A H E S G L K E S P S W V T Q R A Q E M 2040
ttcagaagacgggcacatggagtccggaacaaggccccctaccgacatgcccacagc 6180
F Q K T G T W S P E Q G P P T D M P N S 2060
cagcctaactctcagtcctggtgagatgagagagatgggcagagatggctactccgacagc 6240
Q P N S Q S V E M R E M G R D G Y S D S 2080
gagcactacctccccatggaaggccaggccgggctgcctccatgccccgcctcctgca 6300
E H Y L P M E G Q G R A A S M P R L P A 2100
gagaaccagaggagaaggggcccggccacgtgggaataacctcagtaccatctcagacacc 6360
E N Q R R R G R P R G N N L S T I S D T 2120
agccccatgaagcgttcagcctcctgctgggcccccaaggcccgacgcctggacgattac 6420
S P M K R S A S V L G P K A R R L D D Y 2140
tcgctggagcgggtcccgcggaggagaaccagcggcaccaccagcggcgccgcgaccgc 6480
S L E R V P P E E N Q R H H Q R R R D R 2160
agccaccgcgcctctgagcgcctccctgggcccgtacacccgatgtggacacaggcttgggg 6540
S H R A S E R S L G R Y T D V D T G L G 2180
acagacctgagcatgaccaccaatccggggacctgcccgtcgaaggagcgggaccaggag 6600
T D L S M T T Q S G D L P S K E R D Q E 2220
cggggccgggcccccaaggatcggaagcatcacagcaccaccaccaccaccaccaccac 6660
R G R P K D R K H R Q H H H H H H H H 2240
catcccccgcccccgacaaggaccgctatgccaggaacggccggaccacggccgggca 6720
H P P P P D K D R Y A Q E R P D H G R A 2260
cgggctcgggaccagcgtgtcccgctcgcaccagcaggggccgagagcacatggcgcac 6780
R A R D Q R W S R S P S E G R E H M A H 2280
cggcagtag 6786
R Q * 2282